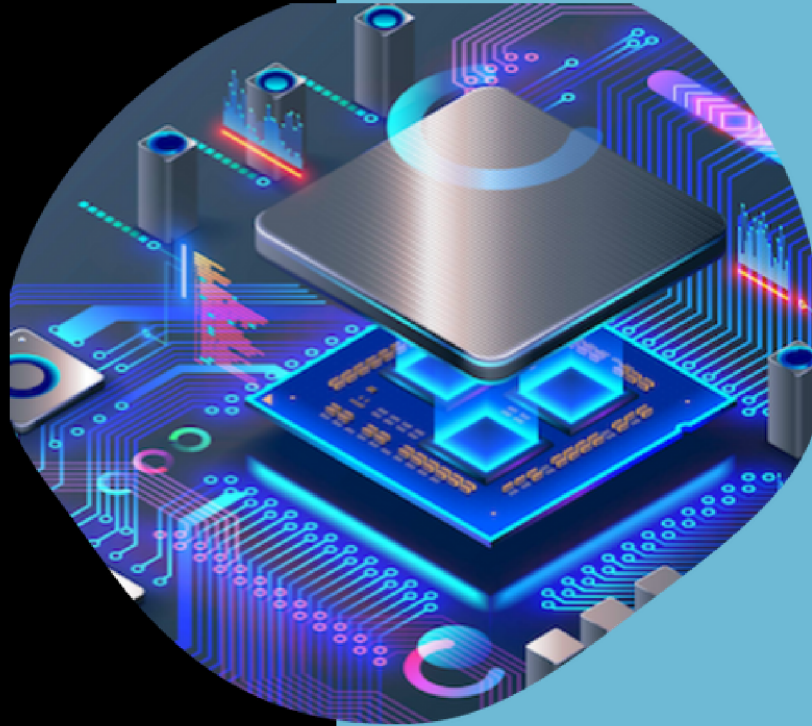


SEMINAR

Heterogeneous System Integration

-Driving the EU Chip Act Ambitions

Friday, April 21st 2023 / TU Delft



Our Speakers:

Dr. Kitty Pearsall

Ir. Rolf Aschenbrenner

Dr. Etienne de Poortere

Prof. X.J. Fan & Prof. C. Bailey

Ir. Richard Blickman

Prof. Lieven Vandersypen

Dr. Carol de Vries

Dr. Luc Augustin

Dr. Alessandro Bruno &
Ir. Matthijs Rijlaarsdam

Ir. Tom van der Dussen

Dr. Rogier Verberk

Chair:

Dr. Henk van Houten

Seminar overview



Driving the EU Chip Act Ambitions

The Netherlands has a strong national ecosystem for Quantum, Photonics, and Semiconductors, well connected to international key players and this seminar aims to build on this strength by intensifying collaboration among these domains.

Heterogeneous integration plays a crucial role in enabling future quantum, photonics, and semiconductor technologies by creating new functionalities and business opportunities through the integration of different chips, technologies and materials into a single system.

This seminar will discuss the importance of heterogeneous integration and its potential for creating more industry and business value. It also aims to cultivate human resources for heterogeneous integration, further strengthening the NL ecosystem.

Join us to explore the exciting opportunities that heterogeneous system integration can offer for the NL ecosystem and beyond, and to be part of the conversation on driving the EU Chip Act Ambitions.

Agenda

Opening & Welcome	Reception	9:00 – 9:15
Dr. Henk van Houten, General Chair		9:15 – 9:25
Dr. Kitty Pearsall		9:25 – 9:40
Session 1 Heterogeneous System Integration of Semiconductors Chair: Prof. Kofi Makinwa		9:40 – 11:40
Ir. Rolf Aschenbrenner	Heterogeneous Integration is the Future - IEEE HIR Roadmap	9:40 – 10:10
Dr. Etienne de Poortere	ASML's View of the Semiconductor Roadmap	10:10 – 10:40
Prof. X.J. Fan Prof. C. Bailey	Heterogeneous Integration Enabled by Multiscale and Multiphysics Simulations	10:40 – 11:10
Ir. Richard Blickman	Advances in Wafer Level Assembly equipment for Heterogeneous System Integration	11:10 – 11:40
Lunch Break		12:00 – 13:00

Session 2, 3 & 4 follows next page

Session 2: Heterogeneous Integration Challenges of Quantum and Photonics Chair: Prof. Kobus Kuipers		13:00 – 15:00
Dr. Carol de Vries	Integrated Photonics; trends and drivers in heterogeneous integration	13:00 – 13:30
Dr. Luc Augustin	Putting light into your chips: heterogeneous integration of InP photonics	13:30 – 14:00
Prof. Lieven Vandersypen	Semiconductor qubits – the prospects and requirements for large-scale integration	14:00 – 14:30
Dr. Alessandro Bruno Ir. Matthijs Rijlaarsdam	Scaling Superconducting Quantum Computers to Industrial Scale	14:30 – 15:00
	Coffee Break	15:00 – 15:30
Session 3: NL Semiconductor Landscape and OEM Perspective Chair : Dr. René Poelma		15:30 – 18:00
Ir. Tom van der Dussen	The overview and ambition of the NL semiconductor industry	15:30 – 16:00
Dr. Rogier Verberk	Dutch semiconductor equipment - Empowering the EU Chips Act	16:00 – 16:30
Session 4: Panel Discussion Chair: Dr. Leo Warmerdam		16:30 – 17:30
Closure Henk van Houten - Thank you & conclusion.		Drinks 17:40

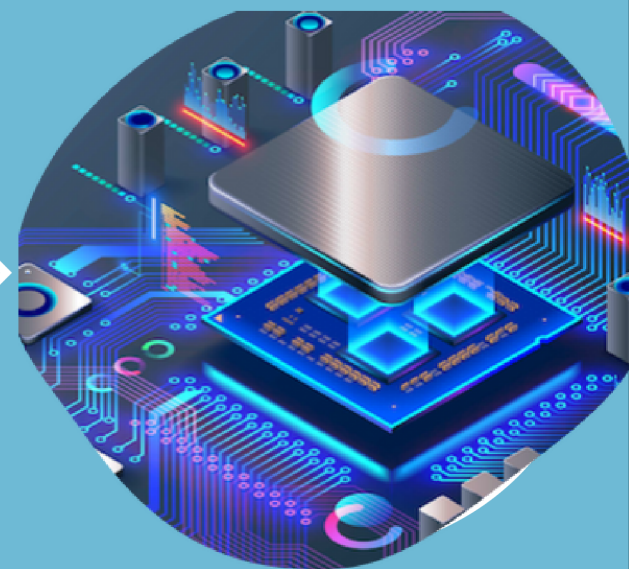
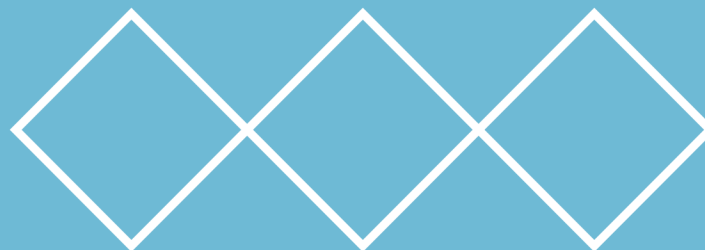
Organizing committee

Prof. Guoqi Zhang, Prof. Willem van Driel,
Dr. René Poelma, Dr. Henk van Houten

Organizers



Co-organizers



Due to limited seats, pre-registration is required, by contacting secr-ectm-ewi@tudelft.nl

Event on Friday, April 21st, 2023, TU Delft

Online registration deadline: April 14th , 2023

Location : EEMCS-Lecture Hall Chip, 36.HB.01.600,
TU Delft, Netherlands